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46. The process of claim 45, further comprising:

forming an overlayer having a thickness over the conductive layer;
etching a contact hole through the overlayer and an amount of the thick region;

and

forming a contact by filling the contact hole with a conductive material.

REMARKS

Applicants have amended claims 21, 26, 31, 37 and 40. Claims 21-46 remain pending. Claim 37 is amended to correct a typographical error. Applicants believe this application is now in condition for allowance.

Rejections under 35 U.S.C. 102(e)

Claims 21-24, 31-34, 40-42 were rejected under 35 U.S.C. 102(e) as being anticipated by Matsuo et al., U.S. Patent No. 5,312,769, hereinafter referred to as Matsuo.

Applicants have amended claim 21 to include claim limitations clearly not taught by Matsuo. Applicants have amended claim 21 to include claim elements, such as forming an underlayer, forming an overlayer and etching a contact hole, which are not taught by Matsuo. Claims 22-25 depend from claim 21 and, are, allowable if claim 21 is allowable.

Applicants have amended claim 31 to include claim elements, such as forming an overlayer, which are not taught by Matsuo. Claims 33-34 depend from claim 31, thus claims 33-34 are allowable.

Applicants have amended claim 40 to include claim elements, such as forming an overlayer and forming a contact through the overlayer which are not taught by Matsuo. Claims 41-42 depend from claim 40, thus claims 41-42 are allowable.

Claims 26-28, 30, 35, 36, 44 and 45 were rejected under 35 U.S.C. 102(e) as being anticipated by Bergemont, U.S. Patent No. 5,484,741, hereinafter referred to as Bergemont.

Regarding claim 26, the Examiner states that Bergemont teaches forming a layer of a first conductive material with a localized thick region. Applicants respectfully disagree. One of the claim limitations not taught by Bergemont is forming a localized thick region. Bergemont discloses forming a layer of conductive material, but fails to disclose forming a layer of conductive material with a localized thick region. In fact, Bergemont states that the layer is formed with "approximately 1,000 Å thick over the entire array." (column 9, lines 25-30). Additionally, Applicants have amended claim 26 to more clearly define over Bergemont. Claim 26, as amended, includes etching a contact hole in said overlayer and an amount of said layer of said first conductive material which is not taught by Bergemont. Applicants respectfully request that this rejection of claim 26 be removed. Claims 27-28 and depend from claim 26 and thereby include claim limitations not taught by Bergemont.

conductive
layer
is
etched
and amount

Additionally, Applicants' claim 35 includes claim limitations not taught in Bergemont. One claim limitation not taught by Bergemont is forming a localized thick region. Bergemont only discloses forming a conductive layer with an approximately uniform thickness. Another claim limitation not taught by Bergemont is forming a first layer of material and forming an opening therein. Bergemont only discloses forming a number of layers and forming spacers. Applicants form a layer with an opening to allow for the localized thick region to be formed. Bergemont fails to disclose forming such a layer. Applicants respectfully request that this rejection of claim 35 be removed.

array

layer

not
clear

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Applicants' claim 36 depends from claim 35 and includes all of the claim limitations of claim 35. Applicant requests that this rejection of claim 36 be removed.

Claim 44 includes claim limitations not taught by Bergemont. As stated above, Bergemont fails to disclose forming a thick region or a thick component and only forms a conductive layer having a substantially uniform thickness. Applicants request that this rejection of claim 44 be removed. Claim 45 depends from claim 44 and includes all of the limitations of claim 44. Applicants request that this rejection of claim 45 also be removed. *no it doesn't*

Applicants respectfully request that this rejection be removed from claims 26-28, 30, 35, 36, 44 and 45. Applicant submits that claims 26-28, 30, 35, 36, 44 and 45 are not taught or anticipated by Bergemont, and are allowable.

Rejections under 35 U.S.C. 103

Claim 25 was rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo, as applied to claim 21. Applicants have amended claim 21 to include additional claim limitations not taught by Matsuo. Claim 25 depends from claim 21 and therefore includes claim limitations not taught by Matsuo.

Claim 43 was rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo, as applied to claim 40 above, in view of Wolf et al., hereinafter referred to as Wolf. The Examiner states that Matsuo does not show "wherein forming the contact includes etching a tolerable amount of the thick region and forming the contact physically in contact with the thick region at a depth deeper than an upper surface of the thick region." The Examiner further states that Wolf teaches that oxide may be etched selectively to polysilicon material and that etching can include a tolerable amount of polysilicon. Applicants respectfully submit that this combination fails to teach

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the subject matter of claim 43. The tolerable amount in claim 43 is much higher than ^{amount not disclosed} the tolerable amount used in Wolf due to the thick region. Furthermore, claim 43 depends from claim 40 which Applicants have shown to be allowable.

Claims 29 and 37-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bergemont, as applied to claims 26, 35, and 36, in view of Chiang et al., U.S. Patent No. 5,817,572, hereinafter referred to as Chiang.

Claim 29 depends from claim 26 which Applicants have shown to be allowable. Since claim 29 depends from an allowable claim, claim 29 is itself allowable.

Claim 37 includes claim limitations not taught, alone or in combination, by the cited references. Claim 37 recites "providing a first layer and forming an opening therein" which is not taught by the cited references, alone or in combination. ^{Wolf} Additionally, claim 37 includes a localized thick region in a conductive layer which is not ^{Wolf} taught by the references. Bergemont only discloses forming a conductive layer having a substantially uniform thickness and fails to disclose forming a thick region. ^{The} Examiner further states that the width of a contact hole is a well known processing variable. However, what is important about Applicants' claimed process is that the ⁵⁰ contact hole can be made to a larger size than conventional contact holes due to the thick region. An aspect of the present invention is that the process permits relaxing tolerances of various components such as the contact and contact hole. Applicants respectfully request that this rejection be removed. Claims 38 and 39 depend from claim 37 and inherit the claim limitations of claim 37. Thus, this rejection of claims 38 and 39 should be removed also.

Applicants respectfully request that this rejection of claims 29 and 37-39 be removed.

Claim 46 was rejected under 35 U.S.C. 103(a) as being unpatentable over Bergemont, as applied to claim 45 above, in view of Akimoto. Applicants respectfully

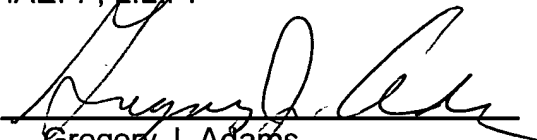
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reiterate their arguments that Bergemont does not teach or suggest the subject matter claimed in claim 45. Furthermore, Applicants expressly reserve the right to swear behind Akimoto which has an issue date of September 16, 1997, and a filing date of December 27, 1994. Claim 46 depends from claim 45 which Applicants have shown to be allowable. Thus, claim 46 is itself allowable. Applicants respectfully request that this rejection of claim 46 be removed.

Respectfully submitted,

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